

REMARKS/ARGUMENTS

Reexamination of the captioned application is respectfully requested.

A. SUMMARY OF THIS AMENDMENT

By the current amendment, Applicants basically:

1. Editorially amend the specification.
2. Amend independent claims 1 – 3 Amend claim 5.
3. Respectfully traverse all prior art rejections.

B. PATENTABILITY OF THE CLAIMS

In the September 11, 2006 FINAL Office Action, the Examiner basically rejected claims 1, 2-5 and 7-20 under 35 USC 103(a) as being unpatentable over U.S. Publication 2003/0059991 to Teramoto et al in combination with applicant's admitted prior art, U.S. Publication 2004/0201874 to Yamazaki, U.S. Publication 2005/0148119 to Fujimura, U.S. Patent 4,584,025 to Takaoka et al and U.S. Publication 2003/0148565 to Yamanaka (see the paragraphs under the heading "Claim Rejections - 35 USC § 103" beginning on page 2 of the Office Action).

It was observed by the Examiner in the advisory action dated February 1, 2007 that the rejected claims require only irradiation with an extended laser and not irradiation with a continuous laser.

By this current amendment Applicant has amended independent claims 1 – 3 to specify that the irradiating does indeed occur with a continuous wave laser, e.g., the alternative of an extended duration laser has been deleted from independent claims 1 – 3.

Further, close examination reveals that Japanese Patent Application Publication 2000-244036 does not teach irradiation of amorphous silicon with a continuous laser.

Therefore, page 3 of Applicant's specification has been amended to correct the characterization of Japanese Patent Application Publication 2000-244036.

Applicant again stresses that the background portions cited in the office action and alleged to constitute admitted prior art do not teach what the final office action contends. The passage on page 3, lines 8-15 in the specification of the present application refers to the crystal size by the SLS method, and explains that (in the conventional SLS method) the length of needle-like crystal increases, but the crystal width does not increase in the SLS method. Thus, page 3, lines 8-15 of the specification, refers to a conventional SLS method, and nowhere mentions a continuous wave laser.

According to the technology of Applicant's independent claim 1, on the other hand, a continuous wave laser is used to extend the laser pulse duration, whereby the temperature distribution of the laser irradiated region facilitates the cooling temperature being uniform, suppressing occurrence of microcrystals, and resulting in longer and wider crystals (page 13, lines 25-28 and page 29, lines 11-19 in the specification of the present application).

In another background section (page 3, lines 25-26), Applicant's specification refers to Japanese Patent Application Publication 2000-244036. Japanese Patent Application Publication 2000-244036 does not relate to a crystallization method of melting the laser irradiated region completely in the thickness direction, or growing a crystal laterally from the interface between the irradiated region and non irradiated region towards the center of the irradiated region. Therefore, the noted background portion of Applicant's specification which refers to Japanese Patent Application Publication 2000-244036 has no relevance to the SLS method. Furthermore, since Japanese Patent Application Publication 2000-244036 is itself silent concerning crystal size, the background portion of Applicant's specification found on page 3, lines 25-26) does not

teach or suggest usage of a continuous wave laser as means for obtaining a large grain size, and certainly not uniformly increased crystal length and width (as required, e.g., by claim 20). There is no basis from the mention of Japanese Patent Application Publication 2000-244036 in Applicant's specification or in Japanese Patent Application Publication 2000-244036 itself that would lead a person skilled in the art to infer that a continuous wave laser would be employed in an SLS method.

Thus, page 3, lines 8 – 15 of the Background portion of the specification does not provide any teaching or suggestion of a continuous wave laser. Nor does the language on page 3, lines 25 – 26 of the specification concerning JP 2000-244063 and irradiating “amorphous silicon with a continuous laser” have anything to do with the SLS method or is there any basis that it would.

In view of the foregoing and other considerations, all claims are deemed in condition for allowance. Accordingly, Applicant respectfully requests that all prior art rejections be withdrawn. A formal indication of allowability is earnestly solicited.

C. MISCELLANEOUS

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

NAKAYAMA
Serial No. 10/687,620

Atty Dkt: 914-170
Art Unit: 2814

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